

Title (en)

MOVEMENT TRACKING AND SIMULATION DEVICE AND METHOD

Title (de)

BEWEGUNGSVERFOLGUNGS- UND SIMULATIONSVORRICHTUNG UND VERFAHREN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE CAPTURE ET DE SIMULATION DE MOUVEMENT

Publication

**EP 3427245 A1 20190116 (EN)**

Application

**EP 17709431 A 20170307**

Priority

- GB 201604115 A 20160310
- EP 2017055339 W 20170307

Abstract (en)

[origin: WO2017153416A1] Apparatus for dental simulation comprising: a display; one or more processors; a hand piece comprising a light emitter and an inertial measurement unit (IMU), wherein the IMU is in communication with at least one of the one or more processors, and wherein the IMU is configured to generate IMU position and orientation data, wherein the IMU position and orientation data describes the position and orientation of the hand piece; at least two cameras in communication with at least one of the one or more processors, wherein each of the at least two cameras is configured to generate a series of images using light emitted by the light emitter; wherein the one or more processors are configured to: receive the series of images from each of the at least two cameras, generate, based on two dimensional coordinate data derived from the series of images, three dimensional coordinate data identifying the position of the LED; receive the IMU position and orientation data; and further wherein the one or more processors are configured to combine the IMU position and orientation data and the three dimensional coordinate data to generate simulation instructions, and to display, on the display, a three dimension virtual image of an object and animate movement of the object according to the simulation instructions.

IPC 8 full level

**G09B 23/28** (2006.01); **G06F 3/01** (2006.01)

CPC (source: EP GB KR US)

**G06F 3/011** (2013.01 - EP GB KR US); **G06F 3/014** (2013.01 - EP KR US); **G06F 3/0346** (2013.01 - EP GB KR US); **G06T 7/292** (2016.12 - GB); **G06T 7/70** (2016.12 - GB); **G06T 19/006** (2013.01 - GB); **G09B 23/283** (2013.01 - EP KR US); **G06F 3/005** (2013.01 - GB); **G06F 3/017** (2013.01 - GB); **G06T 17/00** (2013.01 - US); **G06T 2207/30036** (2013.01 - GB); **H04N 5/144** (2013.01 - GB); **H04N 23/681** (2023.01 - GB)

Citation (search report)

See references of WO 2017153416A1

Designated contracting state (EPC)

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**WO 2017153416 A1 20170914**; AU 2017230317 A1 20180927; AU 2017230317 B2 20221020; CA 3016853 A1 20170914; CN 108780614 A 20181109; CN 108780614 B 20220531; EP 3427245 A1 20190116; GB 201604115 D0 20160427; GB 2548341 A 20170920; JP 2019512299 A 20190516; JP 6789310 B2 20201125; KR 102418773 B1 20220707; KR 20180121605 A 20181107; US 11341867 B2 20220524; US 2019073924 A1 20190307

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